

THE SCOPE

September 1937

THE SCOPE



*Published by the students of the Massachusetts School of Optometry
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THE SCOPE

Presents

Keratometry by Paul S. Cline, O. D.

In its early days the keratometer was essentially an instrument for the laboratory scientist. Examination of the form of the anterior corneal surface such as performed by immortal Helmholtz were long and trying to both subject and examiner since a great many of the meridians were of necessity investigated. The data obtained from the instrument was converted to units of corneal curvature through a series of calculations, essentially of a trigonometric nature.

The keratometer passed from the laboratory to the clinic with the advent of the ophthalmometer of Javal and Schiotz. The construction of the instrument was similar in its main essentials to that of the present Universal instrument. The readings could be obtained directly and quickly and within the required degree of accuracy. The flickering kerosene lamps illuminating the mires were replaced later on by the electric light bulbs. Fortunately for the bearded patient of the seventies, the chin rest was not yet popularized.

Other instruments were developed such as the C. I. and the B. and L. in which the doubling devices and mires differed essentially from the Javal type. The B. and L. possesses what might be termed a tripling device, since simultaneous doubling of the two principal meridians occurs. With any of the modern instruments keratometric readings are obtainable in a few minutes at the most and with a degree of accuracy that exceeds that of any other phase of the examination.

However... the keratometer is used only to measure the astigmatism of a small portion of the optic (central) part of the anterior cornea. It does not profess to determine the astigmatism of the entire eye, nor is it supposed to indicate the power of the correcting cylinder that is to be prescribed. If this is kept in mind, it will do much to remove some of the existing feeling that is possessed by some against the employment of a keratometer in the examination routine.

The question often arises, "Why bother to use the keratometer if it tells you nothing definite about the eye as a whole?"

The same question might well be put against the use of any instrument. A blood pressure reading of 140 systolic and 90 diastolic in itself conveys very little, unless we relate it to the age, weight, physical condition, temperament and so forth of the patient. But just because it alone tells us nothing definite does not mean that it is of no use to the medical profession. Taken together with other findings it very often proves of inestimable value.

Mind you, the keratometer may be dispensed with in an examination, but it is a poor policy to do so. The keratometer, besides being a time saver, offers a method of obtaining objectively a general idea of the astigmatic state of the eye. You will note, I state "general idea".

The anterior corneal astigmatism is combined with a possible astigmatic condition of the internal surfaces of the eye. The resultant is called the ocular astigmat-

please turn to page fourteen

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WELCOME FRESHMEN!

by Leo N. Gibbons, President of Class of '38

We, the upper classmen, extend to you a hearty greeting and best wishes for four years of happy and successful student life.

We think that you have chosen wisely in making optometry your life work. You are entering a new phase of your life and it is within your power to enrich the art and science of your chosen profession or to be among those who besmirch and endanger it. Few of us are willing to grasp the torch and lead the pack. Many of us have a prize to win, a name to carve and thus are not followers of true professionalism.

However, the honest and straightforward student knows that he has assumed a responsibility which is not easily cast off. You will find as time passes that you have a duty to yourself, to your school and to humanity which must be discharged to the best of your ability. By strict application to your work, adherence to certain principles, and by taking advantage of every opportunity offered, you will reap in all too short a time the fruits of your labors.

You have passed the age of adolescence and will be treated as men who are sincerely endeavouring to acquire an exhaustive knowledge of optometry. You will be trusted and expected to live up to that trust. The next four years can be the happiest and most constructive in your life provided that you assume the proper attitude and adopt yourself to your environment. Keep your eyes and mind open and learn to choose the good and discard the unsuitable things in life. Your character and personality are future assets; start to build them now.

We know that at the Massachusetts School of Optometry, with its high standards and fine traditions, you will be given every opportunity to further your ambitions. Our instructors, of whom we are justly proud,

have a thorough knowledge of their subjects and are capable of imparting that knowledge to you. They are at all times ready and willing to assist you in your work and to help you solve the problems which confront and perplex you.

Everything possible has been done to provide you with the most modern instruments and equipment to assist you in your studies. The rest is up to you. Mingle with your fellow students, take an interest in student activities, and, above all, learn to co-operate.

Good luck to you all and may the next few years build a sound foundation for a successful future.

. SCOPE

PEP

Water must be heated to 212 degrees before it can generate enough steam to force the piston in the locomotive sufficiently to move the train. 200 degrees won't do it; 210 degrees won't do it; 211 degrees won't do it, only 212 degrees of vapor will pull the trick.

Now, there are multitudes of men who try to move their life train with low temperature, half-hearted efforts. The enthusiasm which moves the life train and does things won't be generated by a low temperature, an ordinary ambition and sluggish efforts.

The enthusiasm which buoys us up, the enthusiasm which accompanies mastership, will not be generated in an idle brain, or by a half-hearted effort. It takes ginger, grit, pluck, and PEP to do the trick. And you can't generate these qualities by a low temperature.

A COLLEGE FRESHMAN'S RESPONSIBILITY

Dave Rabby '41

If a freshman can begin by recognizing and using the opportunities college can offer him, he has the correct beginning not only for his college but also for his life's career.

The one thing more important than all activities, associations, and undergraduate glory is himself. He must "know" himself, and to do that he must ask himself what he is, what he wants, where he is going. He must find out what life, success, good, and happiness are. Although he may be unaware of the fact, he has come to college to discover the answers to these questions. It takes great courage to do this because, if it is done truthfully, the replies are never satisfactory. No one in this world is perfect. To discover and recognize his faults is a far more difficult task than to overcome them. If one has confessed his faults to himself, he has gone a long way in conquering them. "You cannot start for anywhere until you know where you are. You cannot get anything until you know what you want; nor can you begin your battle for it until you know both your weakness and your strength."

If the freshman "knows" himself, he can the more easily make new friends. He has discovered what he is, and he knows fairly well what he expects in his fellow students. After the activities of college are past, the friends, made in those four most precious years of life, still remain. With those friends he can make himself a bigger and better part of the citizen life to which he has joined himself. He must recognize the fact that undergraduate glory and prominence are but brief, but he should enjoy them to the fullest and make the most of his happiness. If it brings him pleasure, let him take part in all his favorite activi-

ties, but to be a good sport and good citizen at once he must give everyone else a chance. He should not join unless he is sure to take an active part. If he undertakes to do anything, he should do it well or not at all. As a good citizen of his college he is entitled to the enjoyment of the freedoms and privileges of the college, if he uses them intelligently; and he is expected to show the allegiance he has pledged on entrance. As part of the student body, the freshman owes it to the college to abide by its laws and regulations and to discourage among others carelessness or negligence in respecting the rules.

After he knows what he is, what he wants, and what he expects his friends to be, he must ask himself whether or not he is in the right place. He does not always receive sufficient information from booklets or pamphlets of the college beforehand; and if, on entering, he is dissatisfied he has to make the best of what is offered him; or if he can take nothing out nor put anything into the college he has chosen, he should leave and go to a school run specifically for the type of work in which he is interested. The instructors of any school are there to introduce, to guide the student to the road to knowledge, wisdom, and truth. If they are poor guides and cannot give the student satisfaction, they are not fit to lead and the student should look elsewhere for guidance.

The freshman must remember that he is only a small fish in a big pond, and to be successful he must do his share only and not try to fill the pond. He must give himself and of himself to the life he and he only has chosen, and find and leave pleasure within that life.

UPON ENTERING THE JUNIOR YEAR

by Arthur F. March, Jr. '39

A few words of greeting, some hearty, some merely polite, a hurried copying of the program posted on the bulletin board, and the bell (a new one by the way) rings for the first class of our Junior year. We're off on the second lap of our race to the Optometric goal, and though a few have dropped by the wayside most of us are beginning to get our second wind and at the moment are looking with interest on the new pacemakers who have stepped in to guide us over the rest of the course, namely Drs. Greene and Cline. Judging from the initial strides of these two runners it looks as though we were going to travel in rather fast company, and certainly our pacers of last year who are still carrying on with us were never the men to hold anyone back. So pin back your ears, fellow members of the class of '39, and we'll set a new record for the track.

Before going any farther with our notes, we wish to extend, on behalf of the class, a hearty welcome to the newcomers in our midst and the wish that they find their new associations both pleasant and profitable.

If Dr. Greene's enthusiasm for his subject is at all contagious it's sure to make us all better optometrists and better professionalists. In the few short lectures he's given he has got over some very practical and helpful suggestions. Obviously the sensible thing for us to do is to co-operate wholeheartedly with him in all he wants to do. The man has something in him which would be of value to everyone, something we all want; the least we can do is help him in his effort to give away his knowledge and ideas.

And the same can be said of Dr. Paul Cline. As far as our own present state of knowledge goes, these men represent an

almost unlimited source of information and we have only two short years in which to absorb the knowledge which these men can impart. As Dr. Klein so aptly remarked, we should be, at the least, poor business men not to take advantage of our investment and obtain all we can for our money.

That is one nice thing about the present system of higher education. You pay a certain sum of money for which you can be *guaranteed* nothing—but that money places at your disposal a vast amount of material which has a definite market value, and all you have to do is help yourself to as much of that material as you can possibly cram into your skull and walk away with. No one has set a limit on how much you shall take for the sum you have paid. No one will think of you or describe you as being avaricious if you carry off more than the other fellow. In fact the more you can take the more people will think of you for it. So help yourself to knowledge. Show your enthusiasm in class. Corner your instructor after hours and elicit another helping of information from him. He'll think the more of you for it, and all the time what you're really doing is getting two bushels of potatoes for the same price that the other fellow is getting only one. Good business, isn't it? A "wealth of ideas" is certainly an apt expression for the knowledge our instructors possess, as far as we're concerned.

After which lengthy tirade we'll climb down off our lofty perch lest we be thought too serious minded, but at the same time a little more idealism and less commercialism will do our profession no harm to judge from a recent article in one of the current magazines.

PROSPICE

by Eugene M. Davis, '39

A short time ago the following advertisement, which should cause some serious thinking, appeared in a Plymouth, England journal.

Established 1848

Telephone: 898

Heath & Stoneman Ltd.

*Ophthalmic
Opticians*

CERTIFICATED FOR
SIGHT - TESTING

24 GEORGE STREET - PLYMOUTH

Discounting the fact that advertising is not in the highest tradition of professionalism (however, it is considered so in this and other professions in England), who among us does not feel a sense of pride upon reading it?

It certainly sounds professional and dignified, does it not? These Optometrists, for that is what they are, have been established for almost a century, are "certificated for sight-testing", are "Ophthalmic Opticians". They undoubtedly are performing a definite professional service, have been for years, and will continue to do so.

Here, in a measure, is something really to look forward to! For are we not prepared to do precisely the same thing in the same clean and worthy manner? It surely does not appear as though their future were in jeopardy. Nor is it! Nor will ours be when we elect to pursue our profession in a like manner. This group of optometrists

has a definite aura of dignity about it. It has a real place in the community, and will continue to have it. It has set a high standard, and continues to maintain it.

There is but one thought to be garnered from this little notice. It is for us to decide whether we should be high-typed, professional, ethical optometrists, or price-cutting, commercial entities such as we see operating in some of the larger cities. The answer is obvious. Any successful business man will tell us unequivocally that price-cutting ultimately leads to cheapening of the commodity and eventual death of the business. If Optometry is to be considered a business, this will be its resultant demise; if a profession, it will be as the carefully-planted acorn, to grow into the sturdy oak of a most worthy and service-giving profession.

Editor's Note: We in no way condone any form of professional advertisement but offer, in the above, a viewpoint of an optometric undergraduate.

..... SCOPE

THE SUCCESS FAMILY

The Father of Success is — Work.

The Mother of Success is — Ambition.

The Oldest Son — Common Sense.

Some of the other boys are — Perseverance, Honesty, Thoroughness, Foresight, Enthusiasm, Co-operation.

The oldest daughter is — Character.

Some of the sisters are — Cheerfulness, Loyalty, Courtesy, Care, Economy, Sincerity.

The baby is — Opportunity.

Get acquainted with the "old man" and you will be able to get along pretty well with the rest of the family.

THRU THE EDITOR'S EYES

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M. CASSON

Faculty Adviser: MISS ALYCE McCABE

Greetings

The SCOPE staff extends to its readers hearty greetings on the start of what appears to be a very propitious year academically as well as journalistically. To those who are unfamiliar with the trials and tribulations, to say nothing of the pitfalls and criticisms, that beset an editor and his staff, that statement has no particular significance; but to any person who realizes how difficult it is to publish a magazine that will please even a small percentage of the students, and at the same time maintain standards which will reflect to the credit of

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the school, the fact that the SCOPE has progressed to its present status in its comparatively short period of existence is worthy of notice.

We of the present SCOPE staff do not claim, either for our predecessors or ourselves, the credit for the success of the SCOPE. The students and alumni, by their support and encouragement, have contributed immeasurably to the progress of their monthly paper. Advertisers, by using the SCOPE as a highly effective medium of *reaching* the student body and alumni of M. S. O., have at the same time made it possible for those students to have a magazine representing them among the ranks of other college publications throughout the country. To these three groups, as well as to the faculty, we wish to express our sincere appreciation of their interest and encouragement. With their continued patronage and material support the SCOPE will maintain its onward trend in the years to follow.

. SCOPE

You have probably noticed by this time the new "SCOPE" box. We have set aside this box for contributions and constructive criticisms for the SCOPE. Contributions should be typewritten or legibly written in ink on one side of the paper. All such material will be carefully read and edited. No anonymous articles will be accepted since we may find it necessary to consult the author. We thank you in advance for the co-operation we know we will receive.

ACKNOWLEDGEMENT

The editor wishes to acknowledge with gratitude the very kind assistance and co-operation by all those who helped make up this issue.

P. S. We hope you like it.

EYE, EYE, SUH

by M. Ossen '38

EYE-O OPTOMATES —

This is the first in a series of columns to be presented under the new regime and with this column we celebrate our third anniversary as a SCOPE writer. So we take this opportunity to wish ourselves the best of luck in the coming year. (Thanks, pal.)

Now the proper thing to do is to greet the incoming class: To you newcomers we wish "that success greets you as a dog greets his home coming master." (Not bad for an original, huh!)

..... SCOPE

An open letter to the Optometric Editors:

Gentlemen: During the past summer we read about five hundred of your magazines in an attempt to gather material for this column, but all we gathered was a frightful thought of what was to happen to Optometry in the future. The theme in practically every issue was, "Optometry, there is an axe hanging over your head!" Every fault with our profession has been made glaringly visible and these same faults have been over-emphasized for a great many years. There must be more commendable features rather than shortcomings. Why not stress these?

You must remember that a student upon reading these overworked criticisms is likely to become disillusioned with his chosen profession. This fact alone should cause a reaction—why not change your tactics hereafter?

Hoping to hear from you, I am.

..... SCOPE

And speaking of editors: As far as Optometric editorials go we think those by Maurice E. Cox are tops. (Anyhow you'll enjoy his writing more than the journalistic attempts of Mr. Riis).

Last year Rev. Father Farral of Indiana gave one of the most potent yet brief sermons Optometry has ever received when he said:

"You must have professional knowledge above mediocrity. You must have professional attitude above commercialism. You must have a professional philosophy of ethics that commits you to the unselfish service of humanity."

..... SCOPE

This months wisdomism: Her eyes punctuate everything she says.

..... SCOPE

We certainly are sorry that we neglected to copywrite the title, "Eye, Eye, Suh!"; it is now being used by two magazines which appear on the newsstands each month.

..... SCOPE

"EYEDITIES" in The News: Handel, while composing *Total Eclipse*, based on a story by Milton who was blind, about Samson, who was blind, also became blind. (We sort of got mixed up—did you?).... A law in Timor-Laut, East Indies, forces women to keep one eye closed when amongst men. (We thought that was a universal habit.).... We've just about used up all of our space—so until next month—Eye'll be thinking of you. We would appreciate any material you would contribute. (Just an afterthought).

..... SCOPE

It's natchural enough, I guess
When some gits more and some gits less
For them 'uns on the slimmest side
To claim it ain't a fair divide;
But I've allus noticed grate success
Is mixed with troubles more or less,
And it's the man who does his best
That gits more kicks than all the rest.

James Whitcomb Riley.

SPORT EYELIGHTS

Maynard S. Rosen '38

This article will probably belie its title — for at the present there aren't any sport activities in progress and therefore no "Eyelights". So to you Freshmen, our wish is that by your stellar athletic activities in the future you will give us many outstanding items upon which to comment and thereby enable us to live up to our heading.

The only news of importance up to the present time is the election of our basketball officials. We have been recently informed by Dr. Ralph H. Green, our faculty adviser of sports, that he has chosen Maury Ossen '38, as manager, who, in turn, has chosen Alex "Happy" Friedman '38, as coach; and yours truly has been selected from a *large* number of candidates for the position of official scorer, timekeeper, etc.

In the near future, because our basketball equipment is so sorely depleted, a valuable

prize will be raffled off, proceeds going to the building up of our needy supplies. Our sole plea is that the entire school will give its full support to this worthy cause.

In an interview with the coach and manager, the latter quoted: "With most of last year's veterans returning and many likely prospects in view, I am looking forward to the most successful team in the history of the school — that is, if I am given the proper support of the student body."

Coach "Hap" Friedman says: "This year, with a tough schedule ahead, I intend to stress a powerful defence and a sharp passing attack with no 'plays' used at all. I hope there will be a large turn-out."

And as far as we are concerned, we hope to score many points for the 1937-38 team.

Don't forget to support the team!!

RELIABLE HAND LAUNDRY

Hospital and Clinic Uniforms

Tailoring, Pressing, Dyeing, Cleaning

1096 Boylston Street, Boston, Mass.

WE CALL AND DELIVER—FREE

Telephone KENmore 7552

Known for the best Turkey Dinner

—Anywhere

THE GOBBLER

153 - 157 Mass. Avenue, Boston

Excellent Food and Choice Liquors

SERVICE

We feel we have won the confidence of the trade that we are a scientific prescription house. Every Rx is handled on its own merit so as to satisfactorily meet your every requirement. We believe that it is false economy to accept inferior work at lower prices.

We sincerely hope we can continue to serve you with the finest work in New England.

WILSON & HALFORD OPTICAL COMPANY

387 Washington Street
Boston, Mass.

EYE CONSERVATION

The late William H. Wilmer, long a leading ophthalmologist, was head of the Wilmer Institute and professor of ophthalmology in connection with the School of Medicine of John Hopkins University. He also practiced privately. His standing was such that he was oculist to many presidents of the United States.

The following are excerpts from one of the last papers he presented on advances in ophthalmology. It is obvious that Dr. Wilmer grasped some of the important new concepts and knowledge pertaining to the science of seeing, and thought of footcandles in terms of these.

"Few persons consider the great diversity of light conditions under which the eyes are required to function. From a game of golf or tennis where the photometer would register a lighting level of several thousand footcandles, one may come into a dimly lit corridor or vestibule with a light of five to six footcandles, or to a telephone book in a dark corner where light measures only one to four footcandles. But the eyes are such willing little slaves, and sight is such

an everyday affair, that one is not sufficiently careful about the proper lighting. Luckiesh says: 'Much of the fatigue in this half-seeing world of civilized beings is due to seeing.' The human and economic waste engendered by poor seeing in bad lights is appalling. There is no excuse for this, for light and the instruments for measuring it (photometers) are available.

"The light is usually far below the quantity that would produce the best result. Generally speaking, a light below ten footcandles should be used only in halls, corridors, where there is no critical use of the eyes; for writing, reading newspapers, school and clerical work, the light should not be less than forty-five footcandles. The dictionary with small print is very trying on the eyes and the nervous apparatus. A minimum of thirty-five footcandles for this work saves great strain.

"Old age requires more light than youth; and if glasses are used they should be kept clean. It is being recognized at last that proper lighting is a problem involving the eyes, the nervous system and the whole body."

CODE OF ETHICS

of the American Optometric Association

Adopted — June 1935, Miami, Florida

(1). The Optometrist shall keep inviolate all confidences committed to him in his professional relationship with his patient.

(2). It shall be the duty of every Optometrist to support organized Optometry in its efforts to advance and promote the highest ideals of professional service.

(3). It shall be an Optometrists duty to refrain from any exaggeration of a patient's condition.

(4). It is the duty of every Optometrist to keep himself informed as to every

development in his profession by all means within his power and to contribute his share to the general knowledge and advancement of the profession.

(5). It is the duty of every Optometrist to refrain from all criticism reflecting upon the skill of a colleague.

(6). All Optometrists shall refrain from advertising, except that permitted by the Code of Ethics of his respective State Association.

(7). It shall be considered unethical for an Optometrist to be employed except as an associate of a registered Optometrist.

SORORITY IN REVIEW

by Miss Veronica A. Meagher '38

And once more we commence to count our blessings, which much to our dismay is proving a much curtailed process. With the passing of summer came the inevitable changes — some of progression and others of retrogression — which so drastically affected us as a body. As a result, we face this year with the loss of three vitally important members: Pearl Amici, who was lost to us through graduation last June, incidentally the first of our illustrious group to graduate; Madelyn Dyer, a would-be Senior, and Doris Cournoyer of the Junior Class. That leaves us numbering six members strong with no promise of increase in this year's class.

The summer may have put ideas into some of our heads or presented circumstances preventing some from returning to complete our course, but it certainly did not take the edge off our ambition. During this recreational season was found:

Marion Donovan anticipating a refreshing dip in Marblehead waters after a sweltering day behind the counters or in the shop of the American Optical Company in Boston.

Doris Cournoyer (as we now also find her) making new friends and conquests while filling orders and generally making herself useful at the American Optical factory in Southbridge. In her spare moments she is assistant to a local Optometrist.

Amelia Rodd, leading a pleasant life as well as lucrative while assisting, or to be more exacting, working in conjunction with our popular Dr. Anapolle in the office of a Boston Optometrist.

And Pearl Amici we find, while in the process of taking the Connecticut State Boards, employed in the Optometric field in Hartford, Conn.

The remainder of our group enjoyed

themselves leading lives of the idle rich — acquiring a tan, journeying the countryside or recopying notes.

After such varied and pleasant existences we all fell ready and agreeable to join forces and redouble our efforts on the matter of co-operation and in this way attempt to compensate for our deficiency of number. Since we have no initiation activities to attend to, the first act of importance we find on our list is the procuring of Sorority pins which we plan to present at a dinner preceding the Thanksgiving recess. Besides this singular item, a tentative program — to be later announced — is being arranged, in which the Sorority is to be provided with more educational opportunities than have been presented in the past. We are equipped with our plans. Now "all" we need do is breathe the magic formula to bring about their realization.

..... SCOPE

ADVICE

One semester
A young chap
Went to college
And never studied,
Never went to
Classes more than
Once a week
And spent most
Of his time
With the co-eds.
A young chap
Went to college
One semester.

MINUTE BIOGRAPHIES

Herman Ludwig Ferdinand Von Helmholtz

A German physiologist and physicist.... born at Potsdam, Prussia, August 31, 1821....entered the royal medicochirurgical institute at Berlin in 1838....graduated in 1842....presented important contribution to minute anatomy of nerve cells and fibres....assistant surgeon in the army....then became assistant at the Anatomical museum at Berlin, lecturer on anatomy at Academy of Arts, and professor extraordinary of physiology at Albert university....published his famous essay on the Conservation of Force in 1847....essay proved to be one of the most important scientific contributions of 19th century....appointed to chair of physiology and general pathology in University of Konigsberg....confined his researches to physiologic optics from 1851 to 1856....invented the myograph, the ophthalmometer, and the ophthalmoscope, thus making possible the examination of inmost recesses of the living eye....appointed professor of physiology at University of

Bonn in 1855....accepted similar chair at Heidelberg in 1858....published his great work on the "Sensations of Tone as the Physiological Basis of Music....his "Handbook of Physiologic Optics" appeared in 1856....became professor of physics at University of Berlin in 1871....during his last twenty-three years devoted his energies almost entirely to investigations of physical problems....his greatest researches falling under the following heads: conservation of energy....hydrodynamics....electrodynamics and theories of electricity....meteorological physics....optics....and principles of dynamics....ennobled by William I in 1883....bestowed insignias of various orders by kings of Sweden and Italy, Grand Duke of Baden and president of France....academies, universities, and learned societies sent representatives and addresses to national celebration of his 70th birthday....died, September 8, 1894.

- FINEST MATERIALS
- CONTROLLED MANUFACTURE
- REPEATED INSPECTIONS



= *Widesite Lenses of "Quality Beyond Question"*

Finest grade ingredients... precise manufacture... repeated inspections... assure you of Shuron "corrected curve" Widesite lenses of uniform high quality.

No glass is used in the making of Shuron Widesite lenses that does not pass the strict tests of a staff of expert chemists and physicists. And the succeeding molding, grinding and polishing operations are each performed with utmost care, by skilled workmen, with constant supervision and laboratory

control throughout.

No standard is established without laboratory certification that it is the highest commercially obtainable. But all standards are subject to scaling upward, as continuous research reveals improvements in methods or machinery—a constant guarantee that each and every Shuron Widesite will be a lens of "Quality Beyond Question".

SHURON OPTICAL COMPANY, Inc.

"THE HOUSE OF PROGRESS" SINCE 1864
GENEVA, NEW YORK

ism. Very often this will vary with the pupillary diameter, since when the pupil is large the basilar portion of the corneal, which generally tends towards the inverse (against-the-rule) type, will modify the amount of the astigmatism of the anterior corneal surface as a whole. This possibly may account for some of the difference between the keratometric readings and the subjective findings.

With a given amount of ocular astigmatism the correction will depend upon the distance from the cornea of the correcting lens, and the nature and power of the spherical component of the cylindrical lens. For example, a highly myopic patient generally will take the full keratometric reading or even more; whereas, generally the highly hyperopic individual, to correct the same amount of ocular astigmatism, needs a smaller dioptric value in the cylindrical component. The reason is found in the varying effectivity of lenses. This is not to be interpreted as an over-correction for the myope or an under-correction for the hyperope, but rather that to correct the same ocular astigmatism, the myopic requires a stronger cylindrical correction than the hyperope.

Sometimes we find a disagreement in direction between the principal meridians of the anterior cornea and those of the eye as a whole. The smaller the keratometric reading, the greater the disagreement generally. This has been often explained by the fact that the principal meridians of the internal surfaces do not coincide necessarily with those of the cornea, especially if those of the cornea are oblique; so that, the total astigmatism may be regarded as the result of the astigmatic systems com-

bined at oblique angles. Cyclotorsion is held by some to be responsible for the above, and also to be the reason why the cylindrical axis will vary with the distance of fixation. The latter cases are generally rare, since the cyclotorsion, if it occurs, is generally of an insignificant magnitude.

When the spherical ametropia is low (up to about 3 diopters) the astigmatism as determined subjectively is generally about .75 diopters less if with-rule, and more if against-rule. In old age sometimes more discrepancy is found. A record of some hundreds of cases showed this to be true in about 80% of all cases with a low ametropia. The discrepancy is sometimes explained by physiological astigmatism of the inverse type which exists in the eye (generally the lens) which is effective in modifying the anterior corneal readings.

The keratometric readings then, with allowances for ametropia and lens effectivees, can be used as one of a series of diagnostic steps in determining the true refractive condition. These allowances vary with individuals since the human equation will always modify the scientific exactness of any of our instruments.

Its use in cases of illiteracy and in young children often is practically indispensable, since in the latter case particularly other methods, including the skiametric, for lack of proper fixation will not produce sufficiently accurate results.

It is to be hoped that with a fuller understanding of the uses and limitations of the keratometer, the instrument will be employed with greater frequency and to better advantage to the patient and the practitioner himself.



OPTOMETRY CLUB

The honorary society of M. S. O. held a short, informal meeting on Monday, September 20 with the largest aggregation of members on hand since the inauguration of the club. The newly qualified members were the recipients of hearty and well-earned congratulations by the society's president, Mark H. Budilov. In view to widening the scope of optometric knowledge, a series of interesting and enlightening lectures by prominent figures of science is being planned.

Membership to the Optometry Club is open only to members of the two upper-classes — namely, Juniors and Seniors who maintain a yearly rating of 85% or over. However, the lectures will be open to all students.

Under the direction of Dr. Paul S. Cline, and with Dean Dr. Theodore F. Klein as honorary president, the society's officers elected last spring for the 1937-38 season are:

MARK H. BUDILOV, *President*
CHARLES WEATHERS, *Vice-President*
RICHARD DEXTER, *Treasurer*
R. ROBERT ROFFMAN, *Secretary*

The organization now comprises:

Seniors — Alpert, Askowith, Budilov, Donahue, Cerruti, Czelusniak, Dexter, Foley, Fortin, Gibbons, Grossman, A. Harris, M. Harris, Horley, Margolis, Meagher, Pacheco, Parmett, Palomba, Rabinovitz, Roffman, Rosen, Saitz, Swartz, and Tiihonen.

Juniors — Ahern, Aronson, Berman, Bes-sin, Braver, Cowan, E. Davis, Eramo, Donovan, Dexter, Winston Clark, Wilbur Clark, Capone, Fradkin, General, Green, Fine, Kahn, Keller, Leonard, Levitt, Mac-Lean, March, Rodd, Rinn, Hathaway, G. Reynolds Schiano, Sloane, Stephenson, Stonhouse, Valinsky, Wagner, Weast, Wecker, Weinberg, Wild, Yelovitz, and Ziegler.



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